

FEATURES

- Safety pattern type
- All stainless steel system
- Dry / liquid filled
- CE marking

APPLICATION

- Oil & Gas applications
- High pressure applications
- Corrosive & Hazardous environments

Solid Front With Full Blow-out Back



STANDARD PARAMETERS

Accuracy	: CL 1.0
Ambient temperature	: -40...+65°C (without dampening liquid)
	: -20...+65°C (with dampening liquid)
Service temperature	: 300°C max.
Pressure limits	: Steady pressure up to FS value
	: Fluctuating pressure up to 90% of FS value
	: Short time 1.3 x FS value for range up to 100 bar
	: Short time 1.15 x FS value for range above 100 bar
Weld joints	: TIG argon arc welding

MATERIAL OF CONSTRUCTION

Sensing element	: Bourdon Tube (<100 bar : C - type , >100 bar : Helical)
Case & Ring material	: AISI 304 SS (Bayonet type)
Bourdon tube & Shank	: AISI 316L SS (Shank welded directly to case)
Movement mechanism	: AISI 304 SS
Dial	: Aluminum, black graduation on white background
Pointer	: Micro-zero adjustable, aluminum, black powder coated
Gaskets & filling plug	: Neoprene / NBR
Window	: Shatterproof safety glass
Blow off disc	: AISI 304 SS
Diaphragm	: NBR

STANDARD SPECIFICATIONS

Dial size	: DN100 / DN150
Range	: -1...0...1,600 bar
Mounting pattern	: Direct, Bottom connection
Process connection	: 1/2" NPT (M) / 1/2" BSP (M)
Ingress protection	: IP 65
Execution	: Dry but fillable

STANDARD SPECIFICATIONS : DAMPENING LIQUID FILLED, GLYCERIN

Window	: Shatterproof safety glass
Dampening liquid	: Glycerin 99.7% [Service temperature up to 65°C]

TEMPERATURE EFFECT

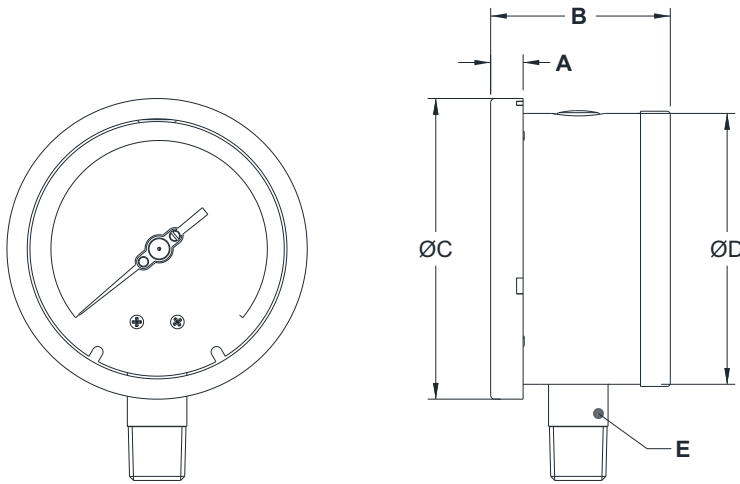
When temperature of the measuring system deviates from reference temperature (+20°C) max error $\pm 0.4\%$ / 10K of true scale value.

REFERENCE

EN 837-1, PED 97/23/EC

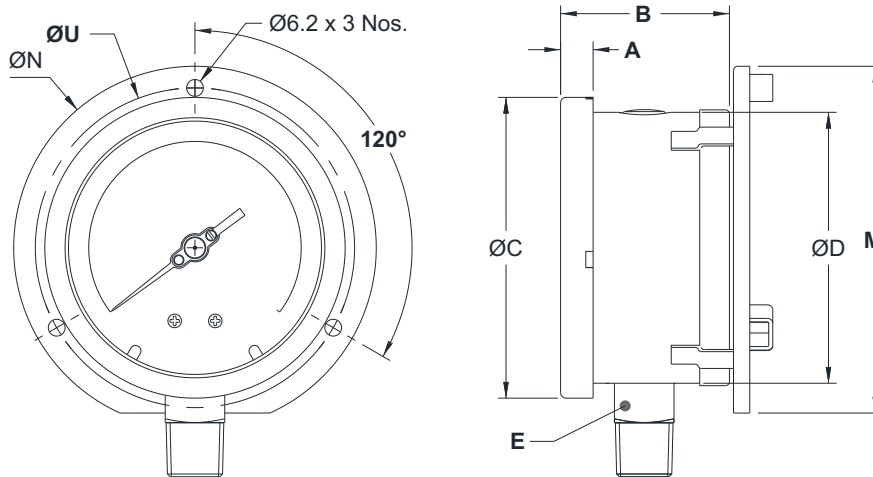
DIMENSIONAL DRAWING

Type B0



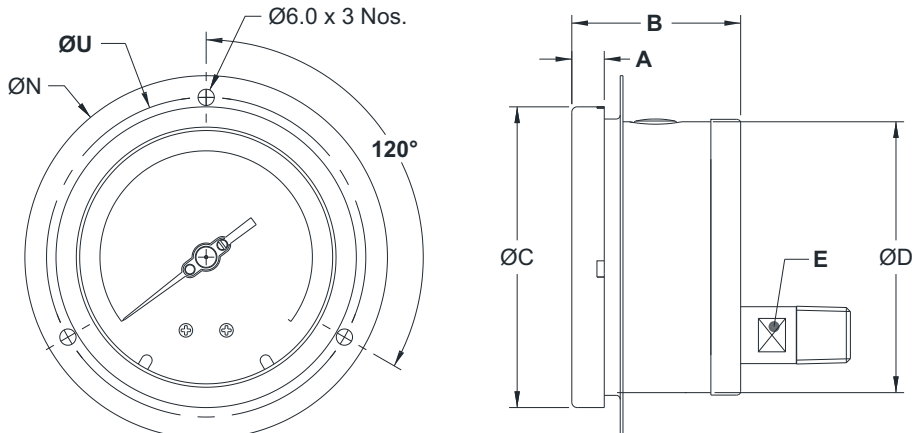
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	66.5	111	100	SQ.22	830
150	17	68.5	161	149	SQ.22	1638

Type B1



DN	A	B	ØC	ØD	E	M	ØN	ØU	Weight (grams)
100	12	66.5	111	100	SQ.22	128	134	118	909
150	17	68.5	161	149	SQ.22	172	186	168	1746

Type L1



DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
100	12	66.5	111	100	A/F-17	134	118	906
150	17	68.5	161	149	A/F-17	186	168	1754

All dimensions are in mm.

ORDERING CODES

1. DIAL SIZE

04	100 mm / 4"
06	150 mm / 6"

2. RANGE

XXX	Refer "Range Table"
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3. MOUNTING PATTERN

B0	Direct, Bottom connection
B1	Wall/Surface/Projection mounting, Bottom connection
B2	2" Pipe/Yoke mounting, Bottom connection
L1	Panel/Front flange mounting, Lower Back connection ⁴

4. PROCESS CONNECTION

12B	1/4" BSP (M)
12N	1/4" NPT (M)
13B	3/8" BSP (M)
14B	1/2" BSP (M)
14M	M20 X 1.5 mm (M)
14N	1/2" NPT (M)

5. INGRESS PROTECTION

ER	IP 65
ES	IP 66
ET	IP 67

6. EXECUTION

EA	Dry
EB	Dry but fillable
EG	Dampening liquid filled, glycerine
EH	Dampening liquid filled, silicon oil

7. OTHER OPTIONS

BA	Case & Ring in AISI 316 SS (B0)
BB	Case & Ring in AISI 316 SS (B1)
BL	Case & Ring in AISI 316 SS (L1)
BC	Case & Ring in AISI 316 SS (B2)
EM	Dampening screw, Monel
EN	Dampening screw, AISI 316 SS
EX	Internal overload stop
EY	Internal vacuum stop
EZ	Pointer stop on dial
GL	AISI 316 SS movement
GM	Dampened movement
GW	Maximum Reading pointer ²
GX	Knife edge pointer
MN	Monel wetted parts
OP	Overrange protection 1.5xFS
OS	High overpressure protection ⁶
P8	Epoxy coating (Case & Ring)
R9	Receiver gauge ³
RN	Rubber parts, NBR
RW	Vent plug, ON-OFF type
TA	5 - point calibration certificate
TC	Material test certificate 3.1
TE	CE certificate
TI	IBR certification
TL	Helium leak testing
TM	Material test certificate 2.2
TN	Tested to NACE standards
TO	Certification for Oxygen service
TP	Performance test
TT	C.C. with NABL traceability
XA	Accuracy CL 0.5 / CL 0.6 of FS
XF	SS tag plate, AISI 304 SS
XG	SS tag plate, AISI 316 SS
XR	Custom designed dial
XT	Dial tag marking

Ordering Example : P201-04-XXX-B0-14N-ER-EB

RANGE V/s OVER RANGE

RANGE "bar"	OVER RANGE "bar"
0...1	4
0...1.6	6
0...2.5	10
0...4	16
0...6	25
0...10	40
0...16	48
0...25	75
0...40	80
0...60	120
0...100	200
0...160	320
0...250	500
0...400	800
0...600	1200

NOTES

- For other connections, please contact factory.
- Available in dry version only with accuracy CL 1.0 or above.
- Please specify the second scale required.
- Available in dry version only.
- C.C. = Calibration Certificate
- Refer Range V/s Overpressure table.

FEATURES

- Solid front with full blow back
- All stainless steel system
- External zero adjustment
- Dry / liquid filled
- CE marking

APPLICATION

- Oil & Gas applications
- High pressure applications
- Corrosive & Hazardous environments

External Zero Adjustment



STANDARD PARAMETERS

Accuracy	: CL 1.0
Ambient temperature	: -40...+65°C (without dampening liquid)
	: -20...+65°C (with dampening liquid)
Service temperature	: 300°C max.
Pressure limits	: Steady pressure up to FS value
	: Fluctuating pressure up to 90% of FS value
	: Short time 1.3 x FS value for range up to 100 bar
	: Short time 1.15 x FS value for range above 100 bar
Weld joints	: TIG argon arc welding

MATERIAL OF CONSTRUCTION

Sensing element	: Bourdon Tube (<100 bar : C - type , >100 bar : Helical)
Case & Ring material	: AISI 304 SS (Bayonet type)
Bourdon tube & Shank	: AISI 316L SS (Shank welded directly to case)
Movement mechanism	: AISI 304 SS
Dial	: Aluminum, black graduation on white background
Pointer	: Micro-zero adjustable, aluminum, black powder coated
Gaskets & filling plug	: Neoprene / NBR
Window	: Shatterproof safety glass
Blow off disc	: AISI 304 SS
Diaphragm	: NBR

STANDARD SPECIFICATIONS

Dial size	: DN100 / DN150
Range	: -1...0...1,600 bar
Mounting pattern	: Direct, Bottom connection
Process connection	: ½" NPT (M) / ½" BSP (M)
Ingress protection	: IP 65
Execution	: Dry but fillable
Zero adjustment	: External screw with locking mechanism

STANDARD SPECIFICATIONS : DAMPENING LIQUID FILLED, GLYCERIN

Window	: Shatterproof safety glass
Dampening liquid	: Glycerin 99.7% [Service temperature up to 65°C]

TEMPERATURE EFFECT

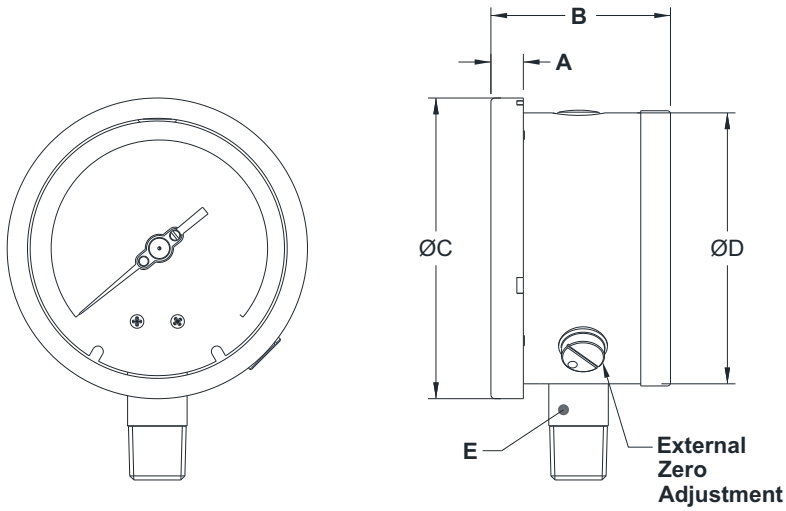
When temperature of the measuring system deviates from reference temperature (+20°C) max error $\pm 0.4\%$ / 10K of true scale value.

REFERENCE

EN 837-1, PED 97/23/EC

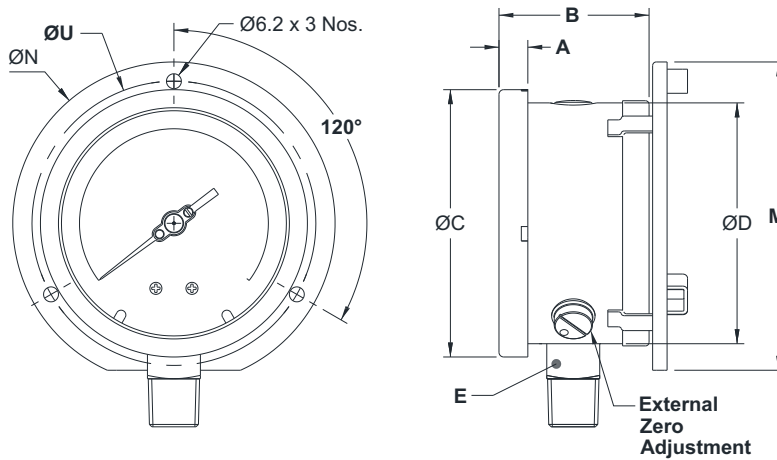
DIMENSIONAL DRAWING

Type B0



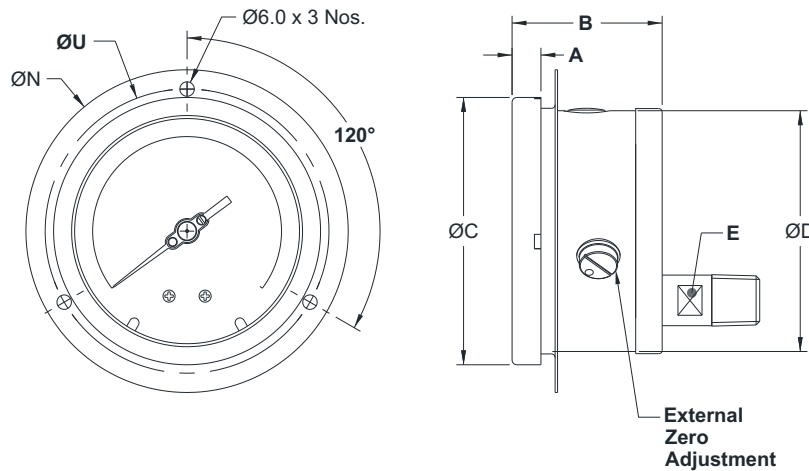
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	66.5	111	100	SQ.22	874
150	17	68.5	161	149	SQ.22	1682

Type B1



DN	A	B	ØC	ØD	E	M	ØN	ØU	Weight (grams)
100	12	66.5	111	100	SQ.22	128	134	118	9553
150	17	68.5	161	149	SQ.22	172	186	168	1790

Type L1



DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
100	12	66.5	111	100	A/F-17	134	118	950
150	17	68.5	161	149	A/F-17	186	168	1798

All dimensions are in mm.

ORDERING CODES

1. DIAL SIZE		04	7. OTHER OPTIONS		XX
04	100 mm / 4"		BA	Case & Ring in AISI 316 SS (B0)	
06	150 mm / 6"	XXX	BB	Case & Ring in AISI 316 SS (B1)	
2. RANGE			EM	Dampening screw, Monel	
XXX	Refer "Range Table"	B0	EN	Dampening screw, AISI 316 SS	
3. MOUNTING PATTERN			EX	Internal overload stop	
B0	Direct, Bottom connection	14N	EY	Internal vacuum stop	
B1	Wall/Surface/Projection mounting, Bottom connection		EZ	Pointer stop on dial	
B2	2" Pipe/Yoke mounting, Bottom connection	ER	GL	AISI 316 SS movement	
L1	Panel/Front flange mounting, Lower Back connection ⁴		GM	Dampened movement	
4. PROCESS CONNECTION		EB	GW	Maximum Reading pointer ²	
12B	1/4" BSP (M)		GX	Knife edge pointer	
12N	1/4" NPT (M)	EA	MN	Monel wetted parts	
13B	3/8" BSP (M)		OP	Overrange protection 1.5xFS	
14B	1/2" BSP (M)	ES	OS	High overpressure protection ⁶	
14M	M20 X 1.5 mm (M)		P8	Epoxy coating (Case & Ring)	
14N	1/2" NPT (M)	ET	R9	Receiver gauge ³	
5. INGRESS PROTECTION			RA	Rubber parts, Viton	
ER	IP 65	EA	RW	Vent plug, ON-OFF type	
ES	IP 66		TA	5 - point calibration certificate	
ET	IP 67	EB	TC	Material test certificate 3.1	
6. EXECUTION			TE	CE certificate	
EA	Dry	EA	TI	IBR certification	
EB	Dry but fillable		TL	Helium leak testing	
EG	Dampening liquid filled, glycerine	EA	TM	Material test certificate 2.2	
EH	Dampening liquid filled, silicon oil ²		TN	Tested to NACE standards	
		EA	TO	Certification for Oxygen service	
			TP	Performance test	
		EA	TT	C.C. with NABL traceability	
			XA	Accuracy CL 0.5 / CL 0.6 of FS	
		EA	XF	SS tag plate, AISI 304 SS	
			XG	SS tag plate, AISI 316 SS	
		EA	XR	Custom designed dial	
			XT	Dial tag marking	

Ordering Example : P202-04-XXX-B0-14N-ER-EB

RANGE V/s OVER RANGE	
RANGE "bar"	OVER RANGE "bar"
0...1	4
0...1.6	6
0...2.5	10
0...4	16
0...6	25
0...10	40
0...16	48
0...25	75
0...40	80
0...60	120
0...100	200
0...160	320
0...250	500
0...400	800
0...600	1200

NOTES

- For other connections, please contact factory.
- Available in dry version only with accuracy CL 1.0 or above.
- Please specify the second scale required.
- Available in dry version only.
- C.C. = Calibration Certificate
- Refer Range V/s Overpressure table.

FEATURES

- Solid front with full blow back
- All stainless steel system
- External zero adjustment
- Dry / liquid filled

APPLICATION

- Oil & Gas applications
- High pressure applications
- Corrosive & Hazardous environments

Miniature Design



STANDARD PARAMETERS

Accuracy	:	CL 1.6
Ambient temperature	:	-40...+65°C (without dampening liquid)
	:	-20...+65°C (with dampening liquid)
Service temperature	:	300°C max.
Pressure limits	:	Steady pressure up to FS value
	:	Fluctuating pressure up to 90% of FS value
	:	Short time 1.3 x FS value for range up to 100 bar
	:	Short time 1.15 x FS value for range above 100 bar
Weld joints	:	TIG argon arc welding

MATERIAL OF CONSTRUCTION

Sensing element	:	Bourdon Tube (≤ 100 bar : C - type , > 100 bar : Helical)
Case & Ring material	:	AISI 304 SS (Bayonet type)
Bourdon tube & Shank	:	AISI 316L SS (Shank welded directly to case)
Movement mechanism	:	AISI 304 SS
Dial	:	Aluminum, black graduation on white background
Pointer	:	Fixed, aluminum, black powder coated
Gaskets & filling plug	:	Neoprene / NBR
Window	:	Shatterproof safety glass
Blow off disc	:	AISI 304 SS
Diaphragm	:	NBR

STANDARD SPECIFICATIONS

Dial size	:	DN63
Range	:	-1...1,000 bar
Mounting pattern	:	Direct, Bottom connection
Process connection	:	1/4" NPT (M) / 1/4" BSP (M)
Ingress protection	:	IP 65
Execution	:	Dry but fillable

STANDARD SPECIFICATIONS : DAMPENING LIQUID FILLED, GLYCERIN

Window	:	Shatterproof safety glass
Dampening liquid	:	Glycerin 99.7% [Service temperature up to 65°C]

TEMPERATURE EFFECT

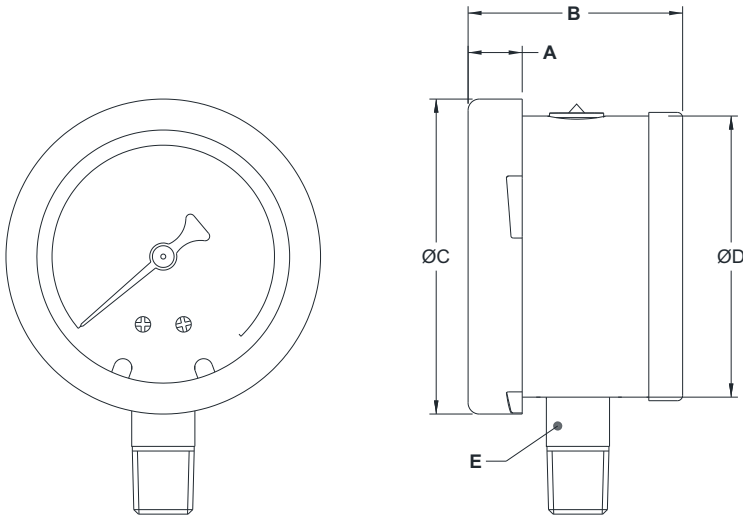
When temperature of the measuring system deviates from reference temperature (+20°C) max error $\pm 0.4\%$ / 10K of true scale value.

REFERENCE

EN 837-1

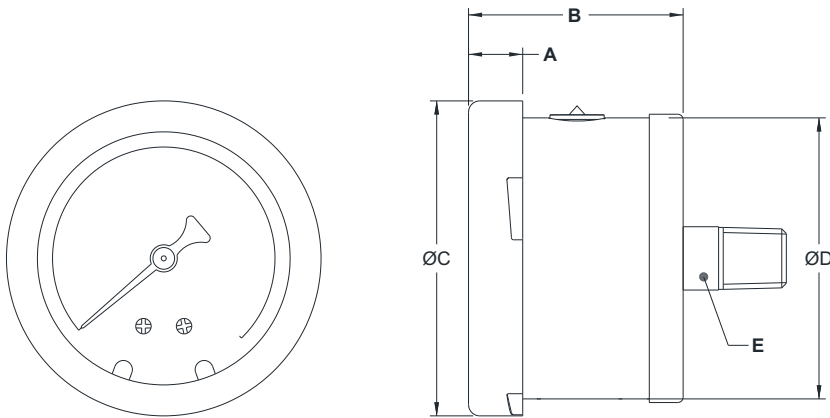
DIMENSIONAL DRAWING

Type B0



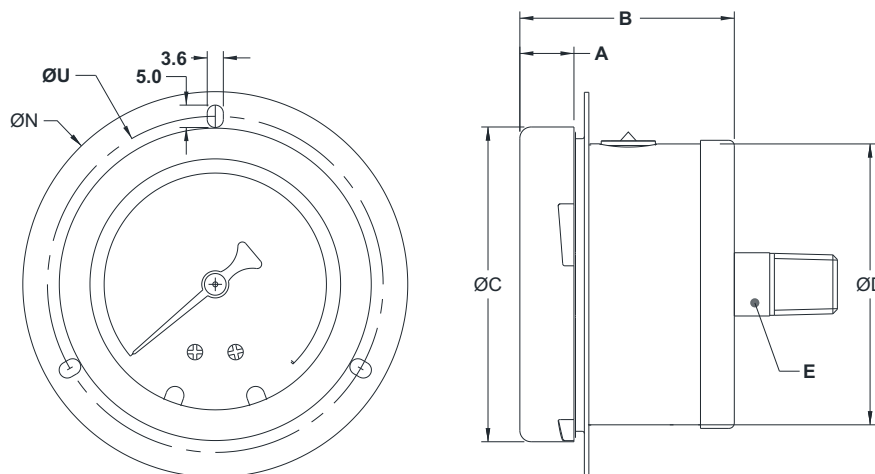
DN	A	B	ØC	ØD	E	Weight (grams)
63	12	46	69.7	62.2	SQ.14	320

Type R0



DN	A	B	ØC	ØD	E	Weight (grams)
63	12	46	69.7	62.2	SQ.14	320

Type R2



DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
63	12	46	69.7	62.5	SQ.14	86	75	240

All dimensions are in mm.

ORDERING CODES

1. DIAL SIZE

25 63 mm / 2½"

25

2. RANGE

XXX Refer "Range Table"

XXX

3. MOUNTING PATTERN

B0 Direct, Bottom connection
R0 Direct, Centre, Back connection
R2 Panel/Front flange mounting, Centre Back connection

B0

4. PROCESS CONNECTION

12N ¼" NPT (M)
12B ¼" BSP (M)

12N

5. INGRESS PROTECTION

ER IP 65
ES IP 66
ET IP 67

ER

7. OTHER OPTIONS

EA Dry
EB Dry but fillable
EG Dampening liquid filled, glycerine
EH Dampening liquid filled, silicon oil

XX

7. OTHER OPTIONS

BA Case & Ring in AISI 316 SS (B0)
BG Case & Ring in AISI 316 SS (R0)
BI Case & Ring in AISI 316 SS (R2)
EN Dampening screw, AISI 316 SS
EZ Pointer stop on dial
GW Maximum Reading pointer³
P8 Epoxy coating (Case & Ring)
RA Rubber parts, Viton
RW Vent plug, ON-OFF type
TA 5 - point calibration certificate
TL Helium leak testing
TM Material test certificate 2.2
TO Certification for Oxygen service
TP Performance test
XF SS tag plate, AISI 304 SS
XG SS tag plate, AISI 316 SS
XR Custom designed dial
XT Dial tag marking

XX

Ordering Example : P203-25-XXX-B0-12N-ER-EB

NOTES

1. For other connections, please contact factory.
2. Available in dry version only.

FEATURES

- Solid front with full blow back
- All stainless steel system
- Dry / liquid filled
- Light weight
- Stabilized accuracy

APPLICATION

- Oil & Gas applications
- High pressure applications
- Corrosive & Hazardous environments

Turret Design



STANDARD PARAMETERS

Accuracy	: Grade 2A ($\pm 0.5\%$)
Ambient temperature	: -20...+65°C (without dampening liquid)
	: 10...+65°C (with dampening liquid, glycerin)
Service temperature	: 120°C max.
Pressure limits	: Steady pressure up to FS value
	: Fluctuating pressure up to 90% of FS value
	: Short time 1.3 x FS value for range up to 100 bar
	: Short time 1.15 x FS value for range above 100 bar
Weld joints	: TIG argon arc welding

MATERIAL OF CONSTRUCTION

Sensing element	: Bourdon Tube (<100 bar : C - type , >100 bar : Helical)
Case & Ring material	: Phenolic resin
Bourdon tube & Shank	: AISI 316L SS
Movement mechanism	: AISI 304 SS
Dial	: Aluminum, black graduation on white background
Pointer	: Micro-zero adjustable, aluminum, black powder coated
Gaskets & filling plug	: Neoprene / NBR
Blow off disc	: Phenolic resin
Window	: Shatterproof safety glass

STANDARD SPECIFICATIONS

Dial size	: 4.5"
Range	: -1...0...1,600 bar
Mounting pattern	: Direct, Bottom connection
Process connection	: 1/2" NPT (M) / 1/2" BSP (M)
Ingress protection	: IP 65
Execution	: Dry but fillable

STANDARD SPECIFICATIONS : DAMPENING LIQUID FILLED, GLYCERIN

Window	: Shatterproof safety glass
Dampening liquid	: Glycerin 99.7% [Service temperature up to 65°C]

TEMPERATURE EFFECT

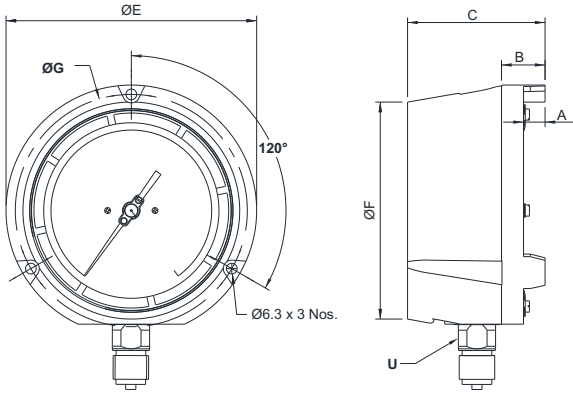
When temperature of the measuring system deviates from reference temperature (+20°C) max error $\pm 0.4\%$ / 10K of true scale value.

REFERENCE

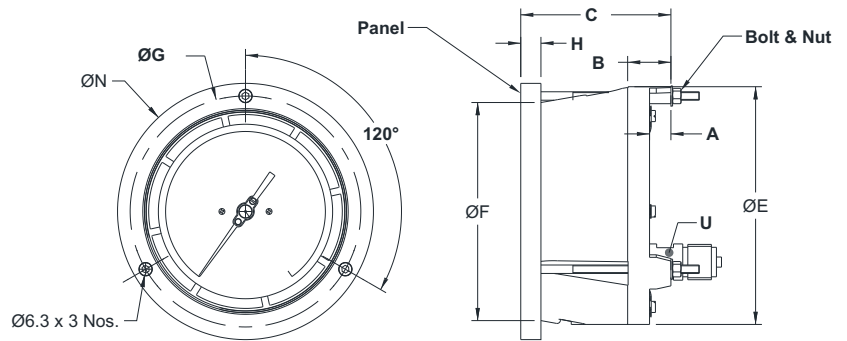
ANSI B 40.100

DIMENSIONAL DRAWING

Type B0, B1



Type L1



DN	A	B	C	ØE	ØF	G	U	Weight (grams)
115	12.5	26	82	149	129	137	A/F-22	828

DN	A	B	C	ØE	ØF	G	H	ØN	U	Weight (grams)
115	12.5	26	82	149	129	137	12	152	A/F-17	933

All dimensions are in mm.

ORDERING CODES

1. DIAL SIZE

45 4.5"

45

2. RANGE

XXX Refer "Range Table"

XXX

3. MOUNTING PATTERN

- B0** Direct, Bottom connection
- B1** Wall/Surface/Projection mounting, Bottom connection
- L1** Panel/Front flange mounting, Lower back connection

B0

4. PROCESS CONNECTION

- 12B** 1/4" BSP (M)
- 12N** 1/4" NPT (M)
- 13B** 3/8" BSP (M)
- 14B** 1/2" BSP (M)
- 14M** M20 X 1.5 mm (M)
- 14N** 1/2" NPT (M)
- 13N** 3/8" NPT (M)

14N

5. INGRESS PROTECTION

- ER** IP 65
- ES** IP 66
- ET** IP 67

ER

6. EXECUTION

- EB** Dry but fillable
- EG** Dampening liquid filled, glycerine

EB

7. OTHER OPTIONS

- EM** Dampening screw, Monel
- EN** Dampening screw, AISI 316 SS
- EX** Internal overload stop
- EY** Internal vacuum stop
- EZ** Pointer stop on dial
- GB** Plexi glass
- GL** AISI 316 SS movement
- GM** Dampened movement
- MN** Monel wetted parts
- R9** Receiver range
- TA** 5 - point calibration certificate
- TC** Material test certificate 3.1
- TM** Material test certificate 2.2
- TN** Tested to NACE standards
- TO** Certification for Oxygen service
- TP** Performance test
- TT** C.C. with NABL traceability
- XF** SS tag plate, AISI 304 SS
- XG** SS tag plate, AISI 316 SS
- XR** Custom designed dial
- XT** Dial tag marking
- XB** Accuracy ± 1.0% of FS

XX

Ordering Example : P204-45-XXX-B0-14N-ER-EB

NOTES

- 1. For other connections, please contact factory.
- 2. C.C = Calibration Certificate